

U.S. Patent Application Serial No. 10/523,051
Amendment dated March 24, 2008
Reply to Office Action of September 24, 2007

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Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1. (Previously Presented) A portable apparatus for conveying blood flow parameters to a user, the apparatus comprising:

a transducer device for providing for a Continuous Wave (CW) Doppler monitoring of blood flows within a patient;

a processing unit interconnected to said transducer unit and adapted to extract a blood flow signal from the operation of said transducer and process said blood flow signal so as to produce a video blood flow signal and an audio blood flow signal;

a display unit interconnect to said processing unit for visualising the video blood flow signal;

and at least one audio emission device interconnected to said processing unit for emission of and audible form of said audio blood flow signal to the ears of said user.

2. (Original) An apparatus as claimed in claim 1 wherein said processing unit and said display unit are packaged as a handheld device.

3. (Previously Presented) An apparatus as claimed in claim 1 wherein said processing unit performs audio spatialisation of said audio blood flow signal and the number of audio emission devices is at least two.

4. (Original) An apparatus as claimed in claim 3 wherein said audio spatialisation includes a spatial separation of information in accordance with the depth of the received signal from a transducer element.

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5. (Previously Presented) An apparatus as claimed in claim 1 further comprising: storage means for storing information associated with subjects on whom the apparatus is used.

6. (Original) An apparatus as claimed in claim 5 further comprising: a microphone for use in recording audio commentary by the user for storage in said storage means.

7. (Previously Presented) A method of transmission of information of blood flow characteristics within a patient to a user, the method comprising the steps of

(a) providing a Continuous Wave (CW) Doppler flow signal indicative of blood flows within the body,

(b) visualising the Continuous Wave (CW) Doppler flow signal on a display device; and

(c) simultaneously providing an audio output to said user of the Continuous Wave (CW) Doppler blood flow signal.

8. (Original) A method as claimed in claim 7 wherein said step (c) includes providing an apparent spatialisation of said audio output to said user.

9. (New) A portable apparatus for conveying blood flow parameters to a user, the apparatus comprising:

a transducer device for providing for a Continuous Wave (CW) Doppler monitoring of blood flows within a patient;

a processing unit interconnected to said transducer unit and adapted to extract a blood flow signal from the operation of said transducer, to process said blood flow signal so as to produce a video blood flow signal and an audio blood flow signal, and to perform audio spatialisation of said audio blood flow signal to produce a spatialised audio blood flow signal;

a display unit interconnect to said processing unit for visualising the video blood flow signal; and

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at least two audio emission devices interconnected to said processing unit for emission of said spatialised audio blood flow signal to the ears of said user.

10. (New) A method of transmission of information of blood flow characteristics within a patient to a user, the method comprising the steps of:

- (a) providing a Continuous Wave (CW) Doppler flow signal indicative of blood flows within the body,
- (b) visualising the Continuous Wave (CW) Doppler flow signal on a display device; and
- (c) simultaneously providing a spatialised audio output to said user of the Continuous Wave (CW) Doppler blood flow signal.